

# Colorado Medicine

*The Official Organ of the Colorado State Medical Society*

PUBLISHED MONTHLY BY THE SOCIETY

## OFFICERS FOR 1903-04

THOMAS H. HAWKINS, *President.* JAS. M. BLAINE, *Secretary.* WM. J. ROTHWELL, *Treasurer.*

### PUBLICATION COMMITTEE

EDWARD JACKSON, *Editor.*

S. E. SOLLY.

ROBERT LEVY.

VOL. I, No. I

NOVEMBER, 1903.

\$2 PER YEAR

### CONTENTS

<b>Our Journal</b>	1	<b>Intrabronchial Injections—C. B. Lockard</b>	17
<b>A Newly-Recognized Disease</b>	2	<b>Minutes of the State Society</b>	22
<b>New Silver Salts in the Conjunctiva</b>	2	<b>Report of House of Delegates</b>	26
<b>Note and Comment</b>	4	<b>Dr. W. W. Grant</b>	29
<b>The President's Address—W. W. Grant</b>	5	<b>County Societies</b>	30
<b>The Physiological Factors in Gall-Stone Disease—Henry Sewall</b>	14	<b>Deaths</b>	32
		<b>News Items</b>	32

Address all Communications to COLORADO MEDICINE 315 McPhee Building, Denver, Colo.

### OUR JOURNAL

The Colorado State Medical Society has decided to publish a monthly journal. This will include its Transactions, replacing the annual volume. But it will perform a more important function, as the official organ of the State Society and the component County Medical Societies. It will publish official announcements of these societies and furnish a general means of communication between their officers, committees and members. The scheme of national, state and county societies only renders the true organization of the profession possible. The ability of its different members to help each other in meeting individual emergencies, or to act effectively together to accomplish a common purpose, depends on what they know of each other; and upon a common consciousness of their needs, difficulties and achievements. It may be questioned whether medical societies have yet done as much for the real organization of the profession as has a common medical literature. Medi-

cal journals, even when managed to serve private interests, have done much to bring us in touch with one another. They give us a common intelligence. The societies give us personal contact. The society and the journal must be brought together. Great things may be expected of this combination, when sustained by the mass of the profession.

Every member should contribute to our journal. It should represent all sides of professional life. It should tell what we know and have accomplished. It may be equally helpful by exhibiting our failures and ignorance. A question may be worth as much as any positive statement.

It is not profitable to make promises, or waste good space in proclaiming plans. Some of our intentions will appear from an inspection of the present issue; others may be recognized later. We expect the journal to develop as it goes on. It rightly demands the earnest, constant assistance of every member of our profession in Colorado.

THE EDITOR.

#### 1. NEWLY-RECOGNIZED DISEASE

Under the title "Chronic Cyanotic Polycythemia," I described two cases in *American Medicine*, June 27; and under the title "Chronic Cyanosis With Polycythemia and Enlarged Spleen: A New Clinical Entity," nine similar cases were gathered together by Osler in the August number of the *American Journal of the Medical Sciences*.

The characteristic features of the disease are as follows:

a. Cyanosis. This has been startling in intensity in many of the cases, the lips approaching the color of a concord grape at times. In one of my cases there was a reddish blue hue of the face, which somewhat resembled the cyanosis of advanced emphysema, but was less slaty in color. This cyanosis was not constant, but became deeper and redder upon eating, upon examination, and upon excitement of any kind. This cyanosis was of some years' duration in all of the cases.

b. Polycythemia. This amounted to practically a doubling in the number of the red cells, the figures varying from 7,000,000 to 12,000,000 in the series of cases. No especial changes are noted in the character of the cells. The white cells varied from 4,000 to 22,000, presenting nothing characteristic of the disease. The hemoglobin corresponded roughly with the polycythemia, the limits being 120 and 200. A high blood tension was frequently noted. The blood was so thick that it would scarcely flow from a pin prick, in several cases.

c. Enlarged Spleen. This is noted in eight of the eleven cases, being great in five of them.

d. Enlarged Veins Upon the Face. These are noted in several of the cases, being very striking in the two reported by me. Turk had seen them in a similar case not reported.

e. Urine. A trace of albumin and a

few hyaline and granular casts are noted in the majority of the cases.

f. Pigmentation of Skin. This was present in several cases, but seems to be less important than the previously mentioned features.

Among the symptoms, headache, weakness, prostration, palpitation, dyspnoea, vertigo, constipation, nausea, vomiting and mental and physical torpor are mentioned, although not all present in any one case, while some have scarcely suffered excepting in appearance.

The albumin and casts seem to depend upon the passive congestion of the kidneys, rather than upon a true nephritis. In one of my cases the albumin was estimated at .5 per cent by weight, and epithelial casts were found in moderate numbers. There was a well defined nephritis with the usual cardiac manifestations in this instance of the series only; and we may probably assume that the association was accidental. This was the only case in which edema is noted, which would tend to strengthen the above assumption.

The course of the disease is a very chronic one, several patients having lived for five to ten years, at least, before the report was made.

No definite knowledge has been attained regarding the pathology of this disease, and thus far no treatment has been of any avail.

J. N. HALL.

---

#### THE NEW SILVER SALTS IN THE TREATMENT OF DISEASES OF THE CONJUNCTIVA.

I have not used nitrate of silver in an eye for over a year. Not many of us could have said this a few years ago. I make this statement now not because I have lost faith in the efficacy of nitrate of silver, but because I have found something else that I like to use that is just as good, and that does not give the patient as much after-discomfort as does nitrate of

SUGGESTIONS

silver. The silver salt that first began to displace nitrate of silver with me was protargol. I look upon it to-day as one of the best substitutes for nitrate of silver. Solutions of it, however, do not keep well. In a short time they become inert, and to get uniform results from it, fresh solutions must be frequently made. Many patients seem to have an idiosyncrasy for it, and in such cases it is as painful as nitrate of silver. Protargol in my own eyes will wholly incapacitate me for hours. Finally albargan, with me, took the place of protargol, and is my standby to-day as a substitute for nitrate of silver. It produces about the same amount of annoyance as protargol, but has the advantage over the latter of not becoming inert when made into solution, if kept in an amber-colored bottle.

Argyrol bids fair to replace them all. It contains twice as much silver as either of the above-mentioned salts, and yet does not produce the slightest conjunctival irritation. It really does not smart as much as does water dropped in the eye. It produces a slight bleaching of a congested palpebral conjunctiva. It keeps well in solution if kept in amber-colored bottles, and should be kept in a dark place. It is said not to produce discoloration of the conjunctiva, no matter how long it is used. As to this, I cannot testify, as I have not given it to anyone to use indefinitely, and as a matter of fact do not intend doing so. I have seen one case of argyrosis produced by protargol, in which a physician had given a patient a 10 per cent solution to be used at home. She had the prescription refilled several times and used it daily for months. The argyrosis was as pronounced as that of nitrate of silver.

It seems that argyrol has not given me the satisfaction that has albargan in the treatment of acute catarrhal conjunctivitis. In the treatment of acute trachoma I cannot see that argyrol is of any value in promoting absorption of the trachoma-

tous bodies, whereas albargan acts as well as does nitrate of silver, and that is saying a good deal. It seems to me that a trachoma demands a certain amount of reaction from the agent applied to induce absorption of the adventitious products. Argyrol produces no reaction, hence it has little curative value in trachoma. I have used argyrol for something over a year, and find that I am extending its use constantly. It is an agent that should be frequently applied in strong solutions. I use a 25 per cent solution in my office, and prescribe a 15 per cent solution for home use. In an average case of "pink-eye" it should be used every three or four hours.

It has been demonstrated that, in the eye, strong solutions of all the new silver salts are more beneficial than weak solutions. When we first began using protargol we did not use it strong enough, and many condemned it until it was used in from 20 to 50 per cent solutions. It must be that our physicians in Colorado are very thorough in their obstetrical practice. At any rate I see very few cases of ophthalmia neonatorum. I have only seen one case during the past year. Argyrol 30 per cent every hour was used in that case, with a perfect cure resulting. I tried argyrol in one case of gonorrhoeal ophthalmia in an adult, but it was not used alone. The eye was lost, despite everything that was done, so that I cannot say that argyrol did any good.

The new silver salts have come to stay. They are all good, but like whiskies, "some are better than others." What the future may bring forth is hard to say, but we will hope that something will be discovered which will combine the virtues of albargan and argyrol.

MELVILLE BLACK.

## NOTE AND COMMENT

*The State Society Meeting.*—Certain departures from previous custom in the recent meeting of the State Medical Society have been the subject of favorable

comment. The reading and discussion of such a list of papers would have been quite impossible if the business of the Society had not been transacted in the House of Delegates; and the business would have received less consideration if it had been crowded into the general sessions. The omission of formal opening exercises, which have nothing to do with the specific purpose of the meeting, will, in future, encourage punctual attendance, while it saves time for the scientific program.

The social features served their purpose admirably. The reception given by Dr. and Mrs. Grant was very enjoyable. The banquet on Tuesday evening might serve as a model for such gatherings. The moderate price made it more truly popular than any more elaborate and pretentious feast could have been. The singing promptly established an atmosphere of good fellowship; and the speeches generally possessed the virtue of brevity, "the soul of wit."

*Look Before You Leap.*—An agent of the \_\_\_\_\_ Information Bureau has been seeking twenty-dollar subscriptions from the Denver doctors. For the twenty dollars he promises the "publications" of the "Bureau;" and, also, that the subscriber shall have his name published in its list of "experts," which lists are to be placed in hotels and other public places. Of these "experts" one of the "publications" says: "The physicians stand at the head of their profession, and have no superiors in their respective localities. We cannot recommend them too highly to life insurance companies and to any and all persons having access to this guide."

These lists are not merely lists of respectable physicians, they are lists of persons for whom claims of especial skill are made.

As a guarantee of the respectability of his enterprise, the agent exhibits one of his "publications" containing the names

of men like W. W. Keen, Charles McBurney, and John A. Wyeth, and implies or expressly states that all these are subscribers. A glance at the list showed the writer the names of several friends whom he knew would not authorize or permit the use of their names in any such list. Letters were written to two of them, calling their attention to the matter. The return mail brought the following distinct and emphatic replies:

DETROIT, October 29, 1903.

MY DEAR DOCTOR JACKSON—Your letter of the 26th is received. Certainly I never subscribed for the publications of the "\_\_\_\_\_ Information Bureau of \_\_\_\_\_, or of any other city. Nor did I authorize the placing of my name on their list of "oculists and aurists." I see no good to any but the proprietors in such publications. My presumption is that my name was listed in the hope of securing other subscribers. Fraternally yours,

LEARTUS CONNOR.

PHILADELPHIA, October 29, 1903.

DEAR DOCTOR JACKSON—I beg to acknowledge the receipt of your letter of October 26, in which you tell me that an agent of the \_\_\_\_\_ Information Bureau of \_\_\_\_\_, has shown you a list printed in a directory which contains my name, and has stated to you that I am a subscriber to this publication. I beg to state that I have never heard of the \_\_\_\_\_ Information Bureau and its directories until the present moment, and that if my name has been utilized by this bureau, or by any agent connected with this bureau, it is absolutely unwarranted and unauthorized. I shall be very glad to hear from you further on this subject, and to take whatever proper means there are to forbid this use of my name. Thanking you very much for having called my attention to the matter, I am,

Yours very truly,

G. E. DE SCHWEINITZ.

*PRESIDENT'S ADDRESS*THE PROGRESS OF AMERICAN MEDICINE,  
AND ITS RELATION TO PUBLIC AFFAIRS.

By W. W. GRANT, M. D., DENVER.

First, permit me to call attention to some matters of interest occurring during the past year.

Chiefly by the efforts of our accomplished secretary, Dr. Blaine, with the aid of the State Council and House of Delegates, the profession of the state has been reorganized and charters issued in accordance with the action of the Society at its last meeting, and in the spirit and purpose of the American Medical Association. On account of deficient population some counties have been only provisionally, but effectively, organized. The membership has increased from 343 to 554.

This is a gratifying result of the first year's work under the new regime, in making the county societies, not only the nucleus, but the very essence of the state organization.

In this process we see, in this country, the largest and the most influential medical organization of the world—one that is destined to play a more conspicuous and effective part in the profession and in public affairs.

In July I was requested by the officers of the American Tuberculosis Congress to appoint a commission of fifteen, or more, from our State Society to attend the Congress to be held in Washington, D. C., in April, 1905. On account of the International Congress in Paris in 1904, this meeting was changed from 1904 at St. Louis and is to be held as stated, in accordance with the reorganization plan adopted last year in New York City. I am informed that in scope and purpose it is to be international. It is my pleasure to impress upon you the great importance of this convention, the interest attached to it, and the necessity of Colorado being well and ably represented in the interest

of Colorado, the public and the profession everywhere. I have selected the membership with care. The names are in the hands of the secretary.

For obvious reasons, whatever is said and done on this subject by a representative body from Colorado must excite more than ordinary attention and interest, and I trust the delegation is fully impressed with the importance of its mission, for anything less than an active and scientific interest in the work of the Congress would be unfortunate for the profession and the state.

The President is Dr. Daniel Lewis of New York, and the Secretary Dr. George Brown, of Atlanta, Ga., with whom you can communicate in regard to papers or other matters concerning the Congress.

I was requested, recently, by Dr. C. A. L. Reed, of Cincinnati, Chairman of the Committee on National Legislation of the A. M. A., to appoint one member from every county of the state to constitute the auxiliary committee on state, congressional and national legislation. This committee is appointed. Its duties are defined by resolution of the national committee, which has been sent you.

This committee means to do active work. Its objects are, in the highest degree, important and commendable. I have endeavored to appoint representative men, and I hope they will, in an individual and collective capacity, co-operate earnestly and actively in effecting desirable and necessary legislation.

This is another step in that more perfect organization and unity of professional action which in the course of time and progress is a manifest modern necessity.

At the last meeting of the American Medical Association the Sections on Ophthalmology and Otology, also the House of Delegates, passed a resolution requesting boards of health, boards of education and school authorities to use their influence, by legislation or otherwise, in having the eyes and ears of all school chil-

dren examined, in order that disease may be discovered in its incipiency and corrected. Every State Society held since this meeting has taken encouraging action in the matter. Knowing, as we do, the prevalent ignorance of parents as well as children of these common diseases, and the fact that, when detected early and treated properly, cures will generally result, I would urge this Association to take favorable action in a cause so worthy and of so much value to the individual and to the public.

I desire to also ask your favorable consideration of uniform laws and regulations in the collection of vital statistics. Congress has, by resolution, endorsed the efforts of the Census Office in this direction, and the aid of the medical profession, generally, is desired.

Our Association should supplement the action of the national body which, at its meeting in New Orleans, passed a resolution requesting President Roosevelt to appoint a physician on the Interoceanic Canal Commission, on account of the great danger to the health and lives of those engaged in the work of construction. In such a malarial, insalubrious climate, the absence of all sanitary and hygienic measures, the appointment of a physician well versed in the knowledge and treatment of tropical diseases would be as appropriate as useful.

The foregoing matters are all of urgent present interest, and I trust you will support me in the attention given them.

A brief allusion to history and to current medical literature is not without interest and instruction in the progress of medicine and surgery, and their relation to public opinion and public affairs. In the determination of some such questions and matters we are forced to deal largely with the body politic. What the profession has done everywhere for the public good, and what it has accomplished, even in our own country, may be in itself a suf-

ficient answer to the political motives and aspersions, and the debauchery of science, in the name of humanity and personal rights, with which it has to contend, and over which it ever has and will continue to triumph. In the cause of scientific truth and progress it is our duty to protect the people against their own ignorance and folly in matters of public health, as it is the duty of the state to make and enforce laws by appropriate legislation for the public weal. From the initiative of Mondini in human dissection in the fourteenth century, to the more perfect establishment of it, by the immortal Vesalius in the sixteenth, dates the beginning of the scientific study of medicine. This was the necessary fundamental step from that long period of priestcraft, sorcery and astrology, with here and there a spark of truth and light, the glow-worm of the brighter day from the darker past. From that day to this, resplendent with new truths and benefits to humanity, the medical profession has contended with ignorance and superstition, in the discovery of new truths and the enactment of every measure and law for the benefit of mankind, including every effort and measure for its own improvement, that it might the better meet the demands of humanity and a progressive civilization.

Jenner's discovery and its application to the prevention of small-pox has rendered the civilized world immune to its greatest plague, yet there are still anti-vaccination societies in existence.

Vivisection, generally painless, without which many of the most important truths of physiology would not be known or demonstrated, is still under the ban of much ignorance and prejudice.

If these necessary acts were guided by liberal and beneficent laws, public illusions would more rapidly disappear and "body-snatching" would be a tradition only.

One hundred years ago a distinguished

English writer asked: "What does the world yet owe to an American physician or surgeon?" This is, in part, the answer: The first volume of medical transactions published in this country was in 1788. The first medical journal published was in 1820, and the use of American text-books was of a more recent date. The great number and influence of all is now a matter of common knowledge. Twitchell, New Hampshire, in 1805, was the first to ligate the common carotid and under most adverse conditions; Gibson, Maryland, the first to tie the common iliac; Valentine Mott the first to do it successfully (1827); Mott the first to tie the innominate, in 1818; amputated hip joint in 1824, and the first to amputate the entire clavicle, which was done in 1828, without anaesthesia of course, in four hours' time. Physick invented the tonsillotome, and was the first to apply rest in hip disease, and in opposition to prevalent teaching. He was the author of absorbable ligatures and was a great lithotomist. (In 1827, it is reported that he operated on the venerable Chief Justice Marshall for stone, and that he returned to his Virginia home on horseback in five weeks from date of operation.)

Post and Rogers, New York, first ligated the subclavian in 1846. Deidrick, Tennessee, was the first to amputate inferior maxilla, in 1810, and Jameson, of Baltimore, the first to excise the superior maxilla, in 1820. Warren, of Boston, was the first to extirpate the parotid, in 1804; Swift, of Pennsylvania, the first to use extension in fractures; Harris, 1830, first to excise the tongue; Knight, Connecticut, 1848, the first to use digital compression in the cure of aneurism; Walcott, Milwaukee, the first to perform nephrectomy, and Boggs, Indiana, cholecystotomy, while the original work of Christian Fenger will not be forgotten. The world pays its tribute to McDowell, the first ovariotomist, 1809. Joseph Pan-

coast was the first to operate for exstrophy of the bladder; Frank Hamilton the first to propose skin-grafting, 1847; Bowditch, the author of thoracentesis, in 1850, and Warren of paracentesis. Professor Crosby, of Dartmouth Medical College, 1838, was the first to amputate both clavicle and scapula, the interscapulo-thoracic amputation. Carnochan, 1858, was the first to resect the superior maxillary beyond Meckel's ganglion for neuralgia, and the recent Hartley Krause operation on the gasserian ganglion is well known. Detmold, New York, was the first to trephine for brain abscess, in 1849. The great debt the modern world owes to the original work of Sims in gynecology needs only to be mentioned.

In intestinal surgery, the best methods of anastomosis, the Murphy button and the Connell suture being representatives of the class, and the more recent progressive work is chiefly by American surgeons; while we are the pioneers in appendiceal knowledge and operative work. Fitz wrote the first valuable paper on perforation of the appendix late in 1886, while the preliminary work of Barker and Sands fills an important place, and to an American surgeon belongs the honor of being the first to open the abdomen and remove the appendix, January 4, 1885.

Morton, of Boston, was the first to publicly demonstrate ether anaesthesia in 1846, but it is conceded that Crawford Long, of Georgia, first discovered and used it, in a surgical operation, in 1842.\*

Notwithstanding the large number of public benefactors in the medical ranks, it has been a subject of comment and criticism that no portrait of a physician graces the Hall of Fame, but we allude, with professional pride and appreciation,

\*For many facts as to priority I am indebted to Dr. Tinker in the Johns Hopkins Hospital Bulletin; and to the American Journal of the Medical Sciences.

to the fact that of the two statues accorded to each state in Statuary Hall in the national capital, Georgia recently selected as one of the two, Crawford Long, the discoverer of anæsthesia. This is the first and only state, so far, to justly pay a fitting tribute to a medical man for his contribution to the cause of humanity; for while vaccination has saved more lives, anæsthesia has relieved more pain and suffering than any other discovery.

In American medicine we are not unmindful of the valuable original work of Gerhard, Dickinson, Parrish, Mitchell, Meigs and others, while to Oliver Wendell Holmes belongs the credit of establishing the infectious nature of puerperal fever. Dr. Nott and Dr. Charles Finlay were the first to claim that the mosquito was the bearer of the yellow fever contagium, but the late lamented surgeon, Walter Reed, aided by Major Gorgas and Lieutenant Carrol of the medical department of the army, in 1900 proved and established the fact that a certain breed of mosquitos was the inoculating agent.

As a result, two striking facts are manifest in the space of one year—one in Cuba, the gem of the West Indies, the other in Sierro Leorne of West Africa, under English domination, and known until these discoveries as “the white man’s grave.” Now, with the simple application of drainage and petroleum to the stagnant filth-breeding waters, the home of the plasmodia and mosquito, the two chief cities, Havana and Freetown, have been converted from pest-houses to pleasure resorts—one a menace to English civilization, the other to the health and commercial interests of our own country; now, under American medical investigation and the work of the Marine Hospital service, both safely opened to the industrial genius and commerce of the civilized world.

This is a brief and very imperfect summary of important original contributions

of America to the progress of medicine and surgery, while the work of to-day excites the interest of the professional world and the pride of our own countrymen. Though the history of the “young republic” is brief, it is important and significant, and I fancy that no one would expose his ignorance by now asking what has America done and is now doing for medical knowledge and science?

But what of the future? The elder Gross, the Nestor of American surgery in his day, in his centennial address said it is doubtful if America will “ever again produce at the same time four such brilliant surgeons as Physick, Mott, Warren and Dudley.” In less than a quarter of a century from that time they were numbered by the scores. Observation, experience and history teach us how idle it is to indulge in prophecy as to the negative attainments of the human intellect. From the operation of laws and forces governing the past and the present, we have a reasonable basis for predicting the future. We know that the truths and acquirements of this generation are the natural endowments of the next. The ultimate fact, or final reality, beyond our ken is called the unknowable, but in presuming to place an absolute limit upon mental capacity, is itself an assumption of prescience that does not seem justifiable. “Unknown” is a better term, for it is constantly dispelled in the calcium light of a restless scientific age, though it does reveal the eternal truth that there are still “more things in heaven and earth than are dreamt of in our philosophy.”

Many of the best surgeons believe that operative technique has now reached such a degree of perfection that there is little room for further improvement. In a general sense this is true. No modern surgeon now infects his patient, and in many respects it would be difficult to improve upon present methods; but as long as we must adapt our procedures to new facts.

improvement even in technique will continue. For instance, it is only a short time since intestinal perforation, occurring in two per cent of typhoid cases, was regarded as almost hopeless, and yet to-day, from the operative case of Mikulicz, the percentage of recoveries is estimated at 25 per cent in adults and 65 per cent in children. It is equally true that intestinal paralysis was looked upon as the last final stage of an abdominal disease, against which it was useless to contend; yet recent experience demonstrates that by aspiration or incision of the intestine and draining the canal, some, perhaps many, patients will be saved who would certainly perish by ordinary methods. Our knowledge of pancreatic disease is recent. The surgery of the organ is necessarily limited, yet experience strongly indicates that its pathology is amenable chiefly to surgical procedures, and is but slightly influenced by medication. That the operative technic in these conditions will be improved there can be no doubt, as I am convinced will be the case in other diseased states whose pathology and treatment are not as yet well known. Still, I believe that the professional mind of the immediate future will be occupied more with questions of preventive medicine and immunity—prevention by the formation of established medical opinion into rules and laws, and immunity through serum inoculation. Inoculation for small-pox was the beneficent beginning in 1798. The remedy for rabies, which we owe to the scientific genius of Pasteur, is the only treatment that bears good fruit, and it must be used timely. Since Behring produced diphtheria antitoxin in 1890, results have been revolutionized, and instead of fearing it as one of the most dreaded and fatal diseases, it is met in the confident belief, based upon ample experience, that inoculation by antitoxin not only prevents, but its *early* use is practically a specific, in the treatment of the disease.

Experiments along this line to prevent typhoid fever are promising. Pneumococcic and antistreptococcic, cancer and anti-tetanus toxin medication are in a tentative state. The specific germs of all infectious diseases will yet be discovered; the remedy will follow, probably, in serum therapy. Dunbar has, in the last year, demonstrated that the pollen of grasses and certain cereals is the active agent in the production of hay fever, and he has produced a serum which promises the most gratifying results in its treatment. We may hope, therefore, that in the not-distant future these sufferers will not have to go to sea, or climb mountain heights, for relief.

With the exception of a very few diseases, we have no medical specifics, but in the future of medicine, and in certain surgical states, we have every reason to anticipate better results in serum inoculation.

In a brief allusion to medical education and preliminary requirements to its study, I do not intend to make invidious comparisons. But no man who is interested in his profession, its character and future, can be indifferent to the intense general interest manifested by the profession and educators at the present time. The subject, in all its phases, is most interestingly treated in the recent annual educational number of the *Journal of the American Medical Association*, and in able addresses of physicians and educators, notably the address of the retiring president of the association, Dr. Billings, of Chicago, himself a distinguished physician and teacher. This is a plain, forceful discussion of the subject, specifically and generally, in its relation to the qualifications and motives of teachers, no less than of students, and ought to be read by all. The Association of American Medical Colleges has recently made a high school degree the minimum preliminary standard for medical study, but as this standard varies in

different communities, its value is somewhat uncertain, though it does indicate substantial progress. About one hundred of the one hundred and fifty medical schools in the United States, are private. There was a time, not long ago, when the tuition of the students paid the salaries of the few teachers and the necessary expenses of these schools. But this is no longer possible in a modern school. The conditions are so different, the requirements and equipment, necessarily, so much more elaborate and expensive, that the old era has passed away, happily not to return. Schools must be endowed by the individual or the state in order to meet the demand. The necessity and interests of the higher education in behalf of humanity, and a more exalted professional standard should be the governing spirit and motive of those who receive, as well as those who give, instruction. What shall be done to meet the recent just criticism of the long time required in getting university, or collegiate, and professional education? One prominent college cuts the four years' course to one year. Columbia proposes a two-year term, but it has not been accepted by any college. Four years in the high school, four years in the university, or college, and three in a law or four in a medical school, is using too much time in preparation for practical business purposes. The high school and college courses are not, as a rule, taken seriously, and in the prevalent absence of a distinctive purpose for the future, demoralization in spirit and in study and responsibility results, which further explains the idle talk that education unfits one for practical business. It would not be wise to curtail the medical course, neither is it necessary. Some of the universities propose, in the interest of medical students, to incorporate the fundamental branches of medicine in the junior and senior years, which would give two years only to the exclusive study of medi-

cine, chiefly clinical, thus making the university and medical course six instead of eight years, as at present. It is to be doubted if this is the best solution of the problem. There is a better and a more practical way. In my opinion, the high school course should be cut two years. If not, any bright boy can take a preparatory course of two years and enter any college or university in America, where he may remain three or four years and enter, well equipped, upon his professional studies. I believe it feasible and perfectly consistent with the future avocation of the student to cut the college or university course one, certainly, and possibly two, years, thus enabling one, without a sacrifice of the classics, to get a splendid business and professional education in three or four years' less time than is required at present.

Medicine is a profession of peculiar responsibility, and requires great patience in study and preparation. No young man should wish to engage in its practice on his own responsibility under twenty-five; but, having clinical advantages, which is necessary to the best equipment, he may safely undertake it after. Johns Hopkins has the highest preliminary requirement of any medical school in the country—a bachelor's degree, with a certificate of proficiency in chemistry, physiology and physics. With this innovation a few years ago, other schools and some of its own friends predicted failure, thinking the standard too high; but under it we learn that 100 freshmen entered the school the past year. Its success was assured in a short time. There was never a substantial reform, incident to human endeavor, unattended with suspicion, incredulity and opposition. However costly, we know that the medical profession is ever stronger and better for them. Before seeking a medical education, it is important for the student to consider natural fitness, as well as inclination for the work,—or some field of learning, or labor, will

miss a brighter star and some man a better destiny, however seriously he may have struggled.

There are 27,000 medical students in the United States at the present time, and over 5,000 graduates annually, which, according to customary estimates, is 2,000 in excess of the requirements of population. Billings, and other authorities, assert that there are too many schools, too many matriculates and too many graduates. That these defects in our educational system will be corrected is manifest.

In a recent publication we get the interesting information, incident to the Medical Congress just held in Vienna, that in the Austrian Empire the number of medical students has decreased 60 per cent in the last ten years, and young men were advised against the study of medicine, partly on account of the poverty of the country districts, which has forced all the best men into the cities with consequent dissatisfaction due to over-crowding. The important fact is also mentioned that owing to sanitary and hygienic reforms, instituted by the profession, the number of cases of sickness has diminished 50 per cent in the last twenty years. This might be profitable reading for Colorado governors and aspiring statesmen interested in the organization of "Medical Trusts."

The laboratory, as the necessary foundation of scientific medicine and the instrument of its application to human ills, must ever fill a most conspicuous place in the medical curriculum. It was the laboratory, and the scientific work of such men as Pasteur and Tyndall, which appealed to the practical genius of a Lister and formed the basis of modern medicine and surgery. By such preparation and efforts, experimental and proved, the profession will rank second to none in scientific work and standing. More than ever a broad culture is justly deemed necessary to the best teaching and to the most ac-

complished work, both general and special.

The special knowledge and peculiar fitness of medical men for certain branches of the public service, both legislative and executive, is more than ever being recognized. The health of cities, communities, states and nation, food and water supply, and conditions of living, are chiefly in their knowledge and keeping. Without their influence and action there can be no sound legislation affecting these interests. Without them disease would still ravage cities, schools, states and nation, and those engines of commerce and civilization, in peace and war, would turn back from every sea and every land. It must be admitted that where this influence is felt in the customs and laws of a people, there only will both health and business unite in safety, and social advancement and material prosperity reach the goal of a reasonable hope and a just expectation. The complete realization rests with the medical profession in unity of purpose and concentrated action. In Europe, if not in this country, physicians may aspire to be statesmen. More than here, they fill important offices in the suffrage of the people. Sir Frederick Treves, in the zenith of a brilliant surgical career, foregoes some of its responsibilities to enter Parliament. Lister and Playfair received its chief honors. In the present year eighteen medical men were elected to the French Senate and more were candidates. The list includes members of the French Academy of Medicine and such distinguished names as Cornil, Pozzi, Peyrot and Jean Bayol.

We cannot hope to pass good laws regulating the practice of medicine, and conserving the public good, without such effort on the part of the profession. Medical character, decent qualifications in those who practice, and the public health, demand positive and united action. No one who is fit to practice will object to it.

and no enlightened citizen who respects knowledge and values character can offer a reasonable objection. Yet we are treated to the humiliating spectacle of two governors of Colorado vetoing better laws than the one in force, and practically in the direct interest of the most unadulterated charlatanism, and under the guise of that political chauvinism miscalled personal liberty, so often the cloak under which one hides ulterior motives and purposes; for that which is not for the good of the greatest number is usually not liberty, but license. Only a Talleyrand can play this role successfully, and he would not employ the arts of the ward politician, nor the sophistry of the demagogue. The pseudo Christian and scientist is one who, to my positive knowledge the past year, and he is representative of the class, is taken to the pest-house and treated for small-pox, yet on returning denies positively that he has been sick. If such people are fit to make laws, and to advise governors as to their duty in such matters, then, indeed, ought taxation for educational purposes to be abolished, for if ignorance is to be thus commended, we should have no use for schools and universities. But as a fact, from the office of bootblack to that of President of the United States, a different rule prevails except as to the study of medicine and the qualifications of a doctor in Colorado. If years of preparation, study and labor do not the better fit one for certain special work, then there is no virtue in knowledge, nor in the best and most humane endeavors. If utter ignorance even of the fundamentals of medicine, and the cyclical visitations of quackery, even though basking in the sunshine of science and a liberal Christianity, are competent to treat infectious diseases, and its legislative denial invites an executive veto, then where is the public safety, and the vindication of learning, if not in the honor, the spirit, the conscience, the beneficent pro-

gress of modern medicine; and in that professional organization and action, state and national, now in progress, and whose influence is destined to be felt, even with those who only consider votes in the determination of public questions? The Governor vetoed the Sanford bill on the ground that it was in conflict with the "Bill of Rights," in preventing Christian and other species of quacks, from treating "contagious diseases," considering the practice, by such people, a religious exercise. The Bill of Rights guarantees freedom of speech, but holds the individual responsible for its abuse. It says that no person shall be denied any civil or political rights on account of religious opinions, but "it shall not be construed to justify practices inconsistent with the safety of the state." There is but one avenue to the legitimate practice of medicine, and that is a course of studies involving, as essentials, anatomy, physiology, chemistry, physics and clinical medicine. Without this preparation no person is fit to practice medicine, and no others deserve the protection of the laws. Any man who is competent to fill a distinguished public office ought to know this.

The principle is recognized in the study and practice of law, of theology, and of every other learned profession, and practically in every known avocation except that of medicine. There is no reason and no excuse for the exception. It is a psychological expression of conduct, "that there is a natural tendency in the human mind to cast the burden of its doubts upon a higher power, and to relieve itself from the effort of decision, and responsibility, by seeking in mystery the solution of its difficulties." When a politician or official wants to do a thing for which he can give no valid reason he appeals to the magna charta, to the Bill of Rights on religious freedom, or to "trusts"—seemingly because one has the ring of casuistry

and the other is an object of popular prejudice and distrust—as if society was not entitled to protection against vice and ignorance, and the practices of those who, in the cause of mammon, usurp the sacred names of religion and science. In the ordinary business affairs of life, people want those to serve them who are best qualified by study and experience. If health and life are valued as highly, one would think that the highest qualifications attainable would be as necessary and desirable. When those engaged in a calling demand the best preparation and the highest possible qualifications, it is in the interest of society and the state, and should be welcomed by every enlightened people. "The safety of the state" demands a medical practice act and public health laws which are consistent with modern thought and progress.

Where enlightened medical opinion has been embodied into laws, sickness has diminished. This is the experience of the civilized world. When medical men are more numerous in legislative and executive offices, progress will be more rapid and satisfactory. The day is not far distant when not only the food supply of the people, but the water supply of cities and states, schools and public institutions, in fact everything that relates to the public health, will be directly under the supervision of competent physicians. Four hundred children died in this country last July from tetanus, due to accidents on the Fourth, chiefly from the toy pistol. Officials and the public have for years been warned by the medical profession of this danger. When its advice and suggestions are put into laws, needless mortality will cease and the public health will be safely guarded. Impurities and adulterations of water and foods are so common and so full of danger to the public, that every good citizen should hasten and welcome the day. It is not a matter of guess-work. The knowledge it at hand to con-

trol these evils and to prevent endemic and epidemic diseases, which to-day are a reproach to every civilized community, for the causes and facts being known, it is only necessary to apply them to the government of homes, cities and states, and to the conduct of life, to prevent and control them.

The nation, through the Medical Marine Hospital Service, has exhibited commendable zeal and interest in excluding and suppressing portable diseases. When officials and law-makers are made to see and admit the truth that those who speak and act from special study and experience are the most competent to judge of the conditions, and therefore the necessity of appropriate laws affecting the public health, then sickness will be less prevalent and will be better treated and less fatal. Then, too, the solidarity of a common citizenship, guided by enlightened opinion and just laws, will mark a new page in the cause of humanity and in the annals of medicine. If every profession does not hold up its own standard, others will not do it for it, even in a progressive age. If we are animated by the good of the many, rather than the selfishness and interests of the few, opposition will wear away. The history and progress of medicine is a struggle against ignorance and cupidity. It is identified with the betterment of mankind—a profession in which is blended aspiration, ambition, and the most worthy altruistic motives. Its cause is that of humanity and science, and though the few must handle the laboring oar, time will, as ever, vindicate the effort.

We appeal for just and liberal laws governing the study of medicine, and a higher, more uniform and exact standard in the requirements for study and in the qualifications to practice, knowing full well that this alone is for the general good, and to the honor and dignity of a profession whose whole life is one of labor

and sacrifice for the welfare and ennoblement of man.

This was the dream of Hippocrates twenty-five hundred years ago. Its realization is no longer a hope or a doubt. The struggle for the preservation and improvement of the best is ever on, and will never end. As each heroic generation rounds out its day and enjoys its blessings, the next will take up the unfinished task, and carry it on to still greater perfection. This is our heritage, our duty and our destiny. For since the sixteenth century, we have not honored an idolatrous worship, but respect men for what they are, and value them for what they do.

---

*PHYSIOLOGICAL FACTORS CONCERNED IN GALL-STONE DISEASE\**

BY HENRY SEWALL, PH. D., M. D., OF DENVER.

My remarks will be limited to a discussion of some of those physiological conditions whose modification leads to the formation of gall-stones, and especially to the means provided by nature to prevent infection of the biliary apparatus or to confer tolerance to the presence of gall-stones when once they have been formed.

It may be assumed that the bile is a continuous secretion which, collecting with varying rapidity within the ducts of the liver, may be, as held by Copeman and Winston,<sup>1</sup> rhythmically impelled thence by contraction of the slender musculature of the larger bile ducts.

It is worth considering how the bile gets into the gall bladder during the intervals between its outpourings into the

intestine. The hepatic duct and the common duct form a nearly straight, continuous tube, and the bile descending the former would seem to find no obstacle to its progress until it reaches the region of the sphincter muscle of the common duct at the entrance of the latter into the intestinal wall.<sup>2</sup> While this muscle is in action the common duct is probably filled with nearly stagnant bile, and the supply to the gall bladder must be due either to a current from the hepatic duct which penetrates but a slight distance into the already filled common duct or else, which seems less probable, the common duct must also by rhythmic antiperistalsis empty itself into the cystic duct. The cystic duct communicates with the common duct by a pore-like opening, perhaps less than two millimeters in diameter in the human subject; a thin projection of mucous membrane bars it from the outlet of the hepatic duct.

In my dissections the structure of the wall at the confluence of the cystic and hepatic ducts is noticeably stiffer than that of the common duct immediately contiguous, so that it can be seen how a slight, positive internal pressure would distend the common duct without collapsing the opening of the cystic duct, and thus keep the latter patent.

When the common bile duct is slit longitudinally in its peripheral region, its mucous membrane from the point of its entrance into the intestinal wall to the opening of the pancreatic duct, distant about half an inch, is relatively rough and corrugated as contrasted with the smooth lining of the common duct elsewhere. This is a point I do not know to have been hitherto observed. The anatomical fact suggests that the sphincter muscle of the common bile duct during its contraction keeps the whole of the intra-intestinal portion of the duct free from bile and thus prevents the fluid from penetrating the pancreatic duct; the latter result would

\*A synopsis of the following paper was presented as a discussion in the symposium on The Medical and Surgical Aspects of the Diseases of the Gall-Bladder and Bile Ducts, held before the Congress of Physicians and Surgeons, which met in Washington last May.

be expected were the sphincter action confined to the very extremity of the common duct.

There are sound reasons for believing that the entrance of bile into the intestine is by way of intermittent jets brought about by a rhythmic reflex action whose usual stimulus is the healthy acid chyme from the stomach (or more specifically, its proteid and fatty constituents), which acts on afferent nerves,<sup>3</sup> probably fibers from the vagi, in the mucous membrane of the duodenum; the resulting reflex consists in a simultaneous inhibition of the sphincter muscle at the termination of the common duct and a contraction of the muscles of the gall-bladder.<sup>4</sup>

Clinicians and pathologists have made it sufficiently clear that the dangers of gall-stone disease depend upon bacterial invasion of the gall-bladder or ducts, if, indeed, such invasion is not the necessary precursor of every gall-stone formation.

It is proper to seek for means by which it may be supposed the bile mass is normally guarded from such infection, for it is conceded on all hands that stagnant bile invites the multiplication of pathogenic germs within it. As regards the entrance of micro-organisms from the intestine, the supposed sphincter action of the muscles covering the terminal one-half to three-quarters inch of the common duct must form a useful barrier. But the body must have to deal more or less constantly with micro-organisms which have already penetrated the biliary tubes. As to the ducts within the liver itself, the penetration of foreign bodies in that direction is no doubt prevented under normal conditions by the continuously outflowing stream with its occasional accelerations. When bacteria have once run the blockade of the sphincter of the common duct they fall, according to the position taken above, into a practically stagnant column of bile; and when they have penetrated as far as the origin of the common duct it

may well be granted that the invading micro-organisms, during the periods when the choledochus sphincter is closed, are swept into the gall-bladder by the current of bile there collecting. Whether the voluminous valve of Heister has any value as a bacterial screen to protect the gall-bladder is a question apparently untouched by investigators. Admitting that infectious material has actually penetrated to the gall-bladder, the physiological citadel is as yet by no means captured by the enemy. For, supposing the reflex mechanism for bile expulsion to be in good condition, ever and anon the choledochus sphincter is relaxed, the gall-bladder, and possibly the large ducts, contract and the cystic and common ducts are flushed by a sharply projected stream of bile. Again and again, we may suppose, during each digestive cycle these channels are filled by a sterile and even slightly antiseptic fluid, offering almost ideal conditions for surgical cleanliness.

Even when infection has turned the normal into pathological conditions, the frequent and early bilious vomiting may possibly prove a frequently efficient aid to self protection. It seems plausible, indeed, that an important, if not the principal, function of the gall-bladder is to serve as a flush tank for the peripheral biliary system. A natural suggestion from the foregoing is the suspicion that atrophy of the gall-bladder, and even its extirpation, may predispose to the condition of cholangitis.

There is obviously a fatal impediment to the self-cleansing function of the bile-discharging apparatus when for any reason there is undue stagnation of the bile. It is well known that all factors, such as the habits of dress, relations of meal-times, etc., hindering the fullness and frequency of bile movement distinctly predispose to gall-stones. Or, again, when, as seems sometimes to be the case, pathogenic bacteria are separated from

the blood in the liver and pass down the hepatic duct the gall-bladder is continually bathed with an infective fluid which offers a constant menace to health.

While it is sufficiently clear that the extreme dangers of gall-stone formation result from infection, and while there is even evidence that without infection there is no stone formation, there is reason to believe that the biliary apparatus has a considerable power of protecting itself against the precipitation of stones even in the presence of pathogenic germs, and of adjustment to the morbid condition when once it has arrived. The findings of the surgeon who opens the gall-bladder, especially the fact that stones are prone to occur in different sets of sizes, point to the conclusion that gall-stone disorders, for the most part, fall in the class of self-limited diseases. In any particular subject infective processes within the gall-bladder may give way an indefinite number of times to the protective powers of the body. The gall-bladder itself is, in the vast majority of cases, undoubtedly the site of the stone formation.

It may be laid down as a broad statement that stone in the gall-bladder, in the absence of active inflammation, is usually harmless, but that urgent danger attends its impaction within either duct. The anatomy of the region of the outlet of the bladder and of the lumen and course of the cystic duct seem peculiarly adapted to prevent the expulsion into the duct of any foreign particles except such as are of minute size. It seems as though a process of natural, if pathological, selection had adapted the gall-bladder apparatus to disarm the morbid process of its dangers by confining the stones formed by it harmlessly within the gall-bladder.

Further evidence in the same direction is furnished by the curious fact that atrophy of the gall-bladder is so apt to occur when stones are confined in that viscous and thus put out of question the

dangerous chance of their extension into the ducts. Moreover, it seems fair to presume that the cessation of the stream of bile into the bladder, combined with more or less stenosis of the cystic duct, must have an influence in preventing reinfection of the stagnant contents of the organ.

Too little is known of the mechanism of the bile-forming apparatus for us to discuss definitely the relations of its functions to the formation of gall-stones. Yet we believe with reason that the bile salts are the normal solvents of cholesterin<sup>5</sup> which composes the majority of gall-stones, and it seems probable that a normal hepatic metabolism, at least as regards the production of bile acids, is distinctly helpful in keeping in solution material which would otherwise be precipitated. Moreover, as physiology teaches that from the bile secreted into the intestine the salts are again absorbed, presumably to undergo an internal circulation, it is obvious that a healthy action of the resorbing apparatus is essential to the protection of the bile from precipitation. Again, the cholesterin excreted by the liver cells probably represents metabolism of the living tissues at large and its amount therefore may be assumed to depend upon the state of health of the whole organism. Herter and others have shown that infective changes of the mucous membrane of the gall-bladder lead to the formation in that tissue of an excessive amount of cholesterin which is probably the chief source of stone formation. The cholesterin and other products arising from inflammation of the mucous membrane of the gall-bladder under the influence of infection must depend in their amount and character on the physiological state of that membrane and its powers of resistance.

Undoubtedly important as are the general body metabolism and the intrinsic resistance powers of the biliary mucous membrane to gall-stone formation, their

relations are at present too obscure for profitable discussion. Turning, however, to the study of conditions which determine the admission of microbes to the biliary tract, it seems reasonable to suppose that any circumstance that restrains the frequent and abundant flushing of the common bile duct would lead, through the stagnation of bile within it, to the penetration of micro-organisms and infection of the gall-bladder.

Unfortunately here, too, we are forced to rely upon probabilities to support our contention. Since we have seen that the normal stimulus to the reflex expulsion of bile from the gall-bladder is the acid chyme of the stomach, it is permissible to assume that a healthy condition of the stomach, both as to its secreting and motor power, is one of the normal safeguards against the formation of gall-stones. The presumption is also obvious that a physiological condition of the mucous membrane of the duodenum is intimately related to the normal action of the afferent nerves entering into the reflex arc concerned in bile expulsion, as well as to the efficiency of the sphincter muscle of the common bile duct.

The extension of a duodenal catarrh into the duct would obviously interfere with the outflow of bile and at least to this extent favor infection of the fluid. In other words, there is reason to believe that a morbid digestion in stomach and intestine is a predisposing cause to the formation of gall-stones. The paroxysms of gall-stone disease seem to me to be separable into two groups of symptoms, namely, first, those due to direct irritation by stone of an inflamed mucous membrane, and second those belonging distinctly to the family of gastro-intestinal disorders. The latter symptoms may sometimes be repeated after the removal of gall-stones by operation, and it is open to suspicion that this variety of symptoms in cholelithiasis is not always the reflex

and referred nervous results of stone irritation, but frequently has its origin in intrinsic gastro-intestinal disorders that have remotely led to the gall-stone disease and are characteristically bound up with it.

#### REFERENCES:

- <sup>1</sup>Journ. Physiology X. 1889, p. 213.
- <sup>2</sup>Cf. W. F. Hendrickson, Johns Hopkins Hospital Bulletin, Sept.,-Oct., 1898.
- <sup>3</sup>Bruno, Arch. des Sciences biol. de St. Petersb. t. vii. p. 87 (Quoted by Howell Am. T. B. Physiology, Vol. I. p. 249).
- <sup>4</sup>Doyon, Arch. de physiol. norm. et pathol. 1894, p. 19. (Abstr. Herrmann's Jahresbericht d. Physiologie, II S. 82).
- <sup>5</sup>Gamgee, Physiological Chemistry, Vol. II, p. 339.

### INTRABRONCHIAL INJECTIONS IN THE TREATMENT OF CERTAIN CHRONIC DISEASES

LORENZO B. LOCKARD, M. D., DENVER.

The treatment of the various chronic pathological processes of the bronchial tubes has ever been unsatisfactory and the means at our command utterly inadequate for the conditions to be combatted.

No class of cases more completely baffles our skill than that grouped under the common designation of "chronic bronchitis," and which includes, with the simple varieties, such distressing and comparatively rare forms as bronchiectasis and fibrinous or plastic bronchitis.

For the amelioration of the suffering attendant upon these processes we have had the choice of one or more of several well-defined methods, each having a like purpose—the bringing of the medicaments selected, in the highest possible concentration and amount, into direct contact with the involved parts.

These methods are:

1. Administration by the mouth of drugs excreted by the lungs.
2. Sprays.
3. Vapors.

Each of these is, to a certain degree, efficacious, but each labors under a common disadvantage—the remedial agent or agents reach the tubes in greatly attenuated strength and volume.

To these methods there has of late been added another which aims at the thorough drainage of the tubes by gravity—the postural method. This is applicable to but a small class of cases in which the chief symptom is the formation of colossal amounts of purulent and muco-purulent secretions.

A simple emptying of the tubes, moreover, though a desirable desideratum, cannot eradicate the determining cause of the condition, and hence can be nothing more than palliative.

Yet another method, more rational than any of the foregoing, has of recent years been used extensively with happy results—tracheal injections of dissolving and healing solutions.

The same objection that has been urged against sprays and vapors obtains here to a lesser degree; the remedies do not penetrate sufficiently deep in sufficient quantities to produce brilliant results. The descent of a considerable portion of the fluid is hindered by spasm of the tubes and the greater part goes no further than the first bronchial divisions. Despite this, the results are infinitely more satisfactory than any heretofore obtained.

Arguing from this (the uses and limitations of tracheal injections), it seemed from a theoretical standpoint that direct injections into the bronchi would be the method “par excellence.”

Several objections, likewise theoretical, at once presented:

1. Production of spasm, preventing descent of fluid.
2. Dyspnoea.
3. Danger of infection.
4. Difficulty of application.
5. Limited field of usefulness.

To determine the reality or non-exist-

ence of these phantom factors, a large series of experiments were made upon animals (guinea pigs, Belgian hares and cats), supplemented by experiments on man, all with a favorable issue. I was primarily convinced of a great tolerance possessed by the bronchial tubes to all irritants, and hence did not anticipate any violent reaction.

This belief was born of the fact that instrumental manipulation of the bronchi is now frequently practiced and that deleterious effects rarely ensue, no matter how vigorous this intra-bronchial work has been. Moreover, foreign bodies can be indefinitely retained, providing the body does not occlude the lumen of the tube, penetrate its walls or introduce septic material.

Such being the case, it seemed rational to conclude that harmful consequences would not follow the introduction of non-irritant, sterile solutions.

The following experiments were made:

1. Penetration of sprays.
2. Penetration of vapors.
3. Penetration of tracheal injections.
4. Penetration of bronchial injections.

#### SPRAYS.

As commonly administered, sprays do not penetrate further than the upper portion of the larynx. With the use of a laryngoscope and a curved beak passed over the epiglottis, the medicaments usually go no further than the middle third of the trachea, but may, under favorable circumstances, penetrate to its bifurcation. Here the spray effect is invariably lost, although some of the drops may coalesce and gravitate into the lower tubes and the alveoli.

#### VAPORS.

The general impregnation of a closed room was not considered, for while the medicated air may and does reach to the deepest recesses of the lung, the quantity deposited, even in the larger bronchi, is

so small that it cannot markedly affect the diseases under consideration. Direct inhalation of vapors, either cold or as steam, gives but slight reaction beyond the bifurcation of the trachea. Benefit undoubtedly results from such inhalations in the milder forms of bronchitis, but where the tubes are filled with secretions they can have no more effect than inhalations will have upon a nasal mucosa bathed in pus or mucous. They cannot act until the membranes are clean, and they cannot be cleansed in this manner. As proof of the correctness of these experiments, I will quote briefly from various authors:

"Local treatment of the mucous membranes by inhalation is illusory, for only the smallest part of the inhaled fluid reaches the bronchi."—Strumpell.

"Above all things, it is to be remembered that of medicines used in this way, only a small part enters the larynx, the greater part being deposited on the base of the tongue and the pharynx."—Schmitzler in the *Klinischer Atlas der Laryngologie*.

"It is a well known fact, as pointed out by Cohen and Roe, that much of the spray from any sort of apparatus directed toward the laryngeal cavity is condensed upon the fauces, soft palate, tongue or mouth, and therefore does not gain access to the laryngeal mucous membrane at all."—Burnett.

"Vapors or sprays hardly penetrate beyond the trachea."—Packard.

"The inhalations employed with this idea, containing antiseptic substances like carbolic acid, benzoate of sodium, and lately iodoform, have so far all proved unsatisfactory, chiefly because the substances inhaled have not reached the bronchi in sufficient amount."—Strumpell.

At most, then, we can say that some droplets flow together and find their way downward by gravity, capillary attraction

and by the force of inspiration, and are thus drawn into the remote alveoli.

That this can have any but the most infinitesimal effect is evident, and the slight improvement resulting is due largely to the allaying of a co-existing laryngeal or tracheal inflammation.

#### TRACHEAL INJECTIONS.

The injections were given in the ordinary way. In nearly all cases it was found that some of the fluid penetrated into the alveoli, but that the greater part was arrested in the larger tubes and a considerable portion in the first bronchus and the lower part of the trachea itself.

#### BRONCHIAL INJECTIONS.

Much the same result was obtained as in the case of the tracheal injections, but more of the fluids penetrated to the depths, a large percentage lodging in the smaller tubes, while only a very small percentage was arrested in the first divisions. No part of the lung entirely escapes. Succeeding an injection, the patient, owing to a feeling of warmth throughout the lower portion of the thorax, frequently believes that the solution has reached the stomach, showing that therapeutically, as well as experimentally, we reach the remote alveoli. This deeper penetration is due largely to mechanical reasons, although spasm of the trachea and larger bronchi play an important role. Another marked advantage of the bronchial route is that we can reach either the right or left side at pleasure, while the injection of the left tubes by the tracheal method is almost impossible.

#### INFECTION—NON-STERILE SOLUTIONS.

A great number of experiments were made as to the effect of non-sterile solutions without, in a single instance, producing pyrexia or other untoward symptoms. These injections were all made in cases where the mucous membranes were healthy and normal, and the chances of infection would be much less in the class

of diseases for which the injections are advocated.

#### SPASMODIC DYSPNEA.

At most there occurs a temporary spasm and arrest of respiration, not greatly exceeding that produced by the tracheal injection. In all cases in man it was easily overcome by holding the nostrils and forcing several deep inspirations.

In some instances a violent attack of coughing will result, but this subsides within a few minutes, and after several repetitions, disappears, except for that which is necessary to clear the tubes of their accumulated secretions.

#### LIMITED FIELD OF USEFULNESS.

Any method of treatment so severe in its application, and requiring such persistency on the part of both physician and patient, will always have a limited field of usefulness. In the milder disorders of the tubes it will have no place at all, but in those of long standing, with pronounced symptoms, when all other remedies are unavailing, it will be of infinite service.

The greatest objection is that it requires a considerable degree of practice and manual dexterity, and so can rarely be practiced by those without special training in throat manipulation.

#### METHOD OF INJECTION.

In many cases the division of the trachea can be seen by ordinary examination, and in these the introduction of the point of a syringe is not extremely difficult, although a preliminary application of cocaine is invariably necessary.

Schrotter states that on several occasions he has been able, in the right bronchus, to see as far as its second bifurcation, and not infrequently as far as the sixth ring. A clear view as far as the second or third ring is frequent to any trained observer.

Several obstacles may be present to

interfere with such a view. Of these the most common is a marked bulging of the tongue, which can usually be overcome by strong traction and a bending forward of the head. This maneuver will also frequently overcome another obstacle—a flat position of the epiglottis.

The more marked this position of the epiglottis the greater will the difficulty be, but even the worst cases can be overcome by lifting it under cocaine.

In some cases the trachea is moved from the median line, or one or the other wall may be bent to one side, and by this abnormality render a deep view impossible or extremely difficult.

If the left wall is bent, strong pressure must be made upon the right side at the cricoid cartilage, sufficient to cause considerable pain, and by this maneuver the passage will be opened. Occasionally a rotation of the head toward the side of deviation will accomplish our object; if not, a combined rotation of the head and trunk may effect it. If the right wall is misplaced the trunk must be rotated to the right at an angle of 90 degrees, with the head in the ordinary position. If this fails there must be a simultaneous rotation of the head to the left. No matter what the difficulties, patience and the use of one or more of these methods will usually suffice.

The bifurcation of the trachea seen, it is only necessary to pass the point of the canula to one side or the other, shove it downward from a quarter to a half inch beyond the point of division, and make the injection during a deep inspiration. Unless cocaine has been used, great rapidity must be used in the introduction. After passing the cords, it is not always essential to see the bronchus. From one to four drams may be used at a single injection, and this repeated as often as is necessary to completely empty the tubes, followed by the healing solution selected. The most important consideration is the

syringe, its caliber, curves and the length of each. It would be impossible to use an instrument fashioned after the ordinary laryngeal or tracheal syringe, for, by the deep introduction of such an instrument, the point comes in contact with the anterior tracheal wall and cannot be forced on.

In individual cases the length and degrees of the various angles must be slightly modified, and for this purpose I use a canula of hard rubber that can be readily altered.

The cases to which bronchial injections are peculiarly applicable, as before mentioned, are bronchiectasis and chronic catarrh, accompanied by copious and tenacious secretions.

Unfortunately, the clinical material at my command has not been sufficient to permit of conclusive deductions, but the limited number in which they were used resulted in sufficient improvement to warrant further trial, and to stamp the procedure as both practicable and safe.

As I do not see any of these cases in private practice, I have had to rely solely upon those referred to the throat clinics for experiment.

#### REPORT OF CASES.

*Case I. Saccular Bronchiectasis.*—Machinist, aet 39. Had syphilis seven years ago; is a free drinker and smokes to excess. Five years ago had an attack of acute bronchitis which never cleared and which has constantly grown worse. His cough, particularly severe in the morning, is always accompanied by the expectoration of colossal quantities of foetid pus. Smaller amounts are brought up at frequent intervals throughout the day and night. His weight is seventeen pounds below normal. He came into the throat clinic from the medical department with the diagnosis of saccular bronchitis, and the request that tracheal injections be given, as all other medication had failed. On September 1 I gave the first

bronchial injection with but slight spasm. After cocainization I threw into the right bronchus one dram of the wine of ipecac, which brought forth a colossal quantity of pus. This was followed by several injections of a mild alkaline solution, two drams at each injection, and finally by one dram of menthol, 15 parts; guaiacol, 2 parts; olive oil, 83 parts. After this first treatment, patient felt better than in a long time. Treatments were given daily until the middle of January, eighteen weeks, with constant improvement. At that time he was obliged to leave the city, but the secretion had diminished to such an extent that he considered himself cured. Whether or not it was permanent I am unable to say. During this time no other treatment was given.

*Case II. Chronic Fibrinous Bronchitis.*—Mr. J. H., barber, aet 32, was referred to me in 1900 with the above diagnosis. He had been sick over four years, and for the past year had taken various tonics and expectorants, potassium iodide in large doses, sprays and inhalants with but slight relief. Same treatment was given as in Case I with marked improvement. After eleven weeks the patient was lost sight of, at which time the symptoms were almost nil, both subjective and objective.

*Cases III, IV and V. Simple Chronic Bronchitis.* Four, nine and five years' duration. All improved at once under bronchial injections and the symptoms seemingly entirely relieved in Cases III and V after five and six weeks' of treatment. In Case IV, where the disease had existed nine years, the condition was wonderfully improved at the end of eight weeks, when financial reasons caused him to discontinue treatment.

In this series of three cases the wine of ipecac was omitted. Treatment was begun with a simple alkaline mixture followed by the guiacol-menthol combination. At times creosote, eucalyptol and pine-needle oil were substituted for the

guiacol. In each, previous medicinal and local treatment had failed to produce any permanent improvement.

*Case VI. Bronchorrhœa.* Nurse, aet 36, referred to the throat clinic of Denver University from the Medical Department. Has had bronchorrhœa for nearly six years and brings up daily over one pint of foul smelling pus. During all these years has been under various treatments without relief. For six weeks I gave daily tracheal injections with considerable benefit, but at this time the improvement ceased. Daily injections into the bronchi were then commenced with such relief that at the end of three months the daily secretion amounted to not more than one dram. At this time her daughter contracted typhoid fever and I did not see her for four months, when she returned with the statement that she was in the same condition as when the treatments were interrupted.

*Case VII.* Miss G., aet 25. Has had hay-fever for eight years. Five years ago the attack was accompanied and followed by severe bronchitis and asthma, and for the past three years this condition has persisted without intermission.

This summer, though the hay-fever was conquered, the bronchial symptoms raged with their old intensity. No treatment availed, and on July 10 I began the daily intrabronchial injections with immediate relief and improvement. By July 21 she was apparently cured, and although no treatments have been given since that date, she remains, to all appearances, perfectly well.

In Strumpell's Text-Book we read: "The chief end of treatment (in these cases) must be to bring the putrid processes in the bronchi to a standstill by the death of the agents of putrefaction. The difficulty of fulfilling this task lies in the impossibility of getting the disinfecting material to act on the bronchial mucous

membrane in the necessary amount and concentration."

No method of treatment can meet this requirement to the same degree as direct intra-bronchial injections.

---

MINUTES OF THE TWENTY-THIRD ANNUAL MEETING OF THE COLORADO STATE MEDICAL SOCIETY, DENVER, OCTOBER 6, 7 AND 8, 1903.

---

Tuesday, October 6.

The Society was called to order at 10 a.m. by the President, Dr. W. W. Grant.

The President: I wish to announce to the Society that the committee of arrangements has seen proper to dispose of some of the preliminary proceedings incident to our opening meeting. It therefore asks me to tender to the Association and the visitors a cordial welcome to the City of Denver. The members of this Association are always welcomed by the profession and the citizens of this city with open hearts and the hospitality of their homes. The chief of police, who is in reality the sheriff of the City and County of Denver, has assured me that he will give to the visiting members of this Association the same license, the same liberty and the same protection recently accorded to non-residents during the charter election. So I want to assure you that you are just as safe as if the keys were held by the Secretary of our Society, Dr. Blaine. There is, ladies and gentlemen, little for me to say beyond the fact that you know the profession of Denver is always glad to see you; always wishes you a pleasant and a profitable stay in Denver, and desires that you shall return home in good health as well as in good spirits.

The next order of business is a statement from the chairman of the committee of arrangements for the session, Dr. Jayne.

Dr. Jayne: Mr. President and Members of the Colorado State Medical Society: Under the constitution, the State Society in its meeting is practically the guest of the County Society, in which the meeting is held. In behalf of the Denver City and County Society, as chairman of the committee of arrangements, I welcome you to Denver. I trust the arrangements which we have made for the meeting and for your entertainment will be satisfactory and that this meeting will be a great success. The committee of arrangements have

arranged that the general session to-day will be held in this room. The meeting of the House of Delegates will be held in room 822. The meeting to-day is held in this small room because of the necessity of preparing the larger room, the Ordinary, for the banquet which is to be held to-night. To-morrow the general session will be held in the Ordinary on the other side of the building.

The committee of arrangements have considered the matter of the banquet very carefully. After full discussion, they decided it would be better to have a banquet at a price at which all members could easily attend; and that each one should pay for his own banquet ticket, instead of, as heretofore, the members from out of town being the guests of the Denver profession. The banquet to-night will be held as shortly after 8 o'clock as possible in the Ordinary, and it will be given without wine and without cigars. Any person desiring to have wine or cigars will pay for them.

The arrangement for to-morrow night, in a social way, is a reception in the evening. The President, Dr. Grant, and Mrs. Grant, will hold a reception from 8:30 o'clock until 11 o'clock p. m., at the residence of ex-Governor Grant, 770 Pennsylvania avenue. This reception is intended for all the members of the Society and their wives. The invitation is extended by Dr. Grant, through the committee of arrangements, freely to the Society, and without any further invitation.

The President: We will now hear the minutes of the last meeting of the State Society.

Dr. Blaine: I move that the minutes as printed in the transactions of 1902 be made the minutes of that meeting, and that the reading be dispensed with.

Seconded and carried.

**Papers.**—"The Physiological Factors Engaged in Gall-stone Disease," Henry Sewall, Denver.

On motion of Dr. Polly, seconded and carried, Dr. Sewall's time was extended to permit him to complete the reading of his paper.

Dr. Sewall's paper commended by Dr. Solly.

The president announced that there would be a meeting of the House of Delegates in room 811 Wednesday morning at 11 o'clock.

"Intrabronchial Injections in the Treatment of Certain Chronic Diseases," was read by L. B. Lockard, of Denver.

"Criminal Abortion," was the subject of a paper by Minnie C. T. Love, Denver. Discussed by Drs. Stuver, Weist and Love.

"Osteo- and Rheumatoid Arthritis," by B.

C. Leavitt, Denver. Discussed by Drs. Packard, John L. Porter of Chicago and Leavitt.

The President called Dr. H. G. Wetherill to the chair.

"Operations on the Kidney, with the report of a case of Nephro-ureterectomy," by C. H. McLean, Denver.

The Chairman: Dr. Grant wishes me to announce that the committee on legislation will meet to-morrow at 12 instead of to-day.

The Chairman announced that the following two papers would be discussed together:

"The Testing of Vision of Pupils in the Public Schools," Edward Jackson, Denver.

"The Testing of the Hearing of Pupils in the Public Schools," William C. Bane, Denver.

They were discussed by Drs. Friedmann, Melvin, Black, Spivak, Jackson and Bane.

Dr. Love: I move we now adjourn until 2 o'clock this afternoon, and that the papers on the program for this forenoon which have not been read, be made the first order of business at this afternoon's session. Seconded and carried.

Afternoon Session, October 6.

Society called to order by the President.

**Papers.**—"An Outline of Albuminuria," E. C. Hill, Denver.

"Volvulus of the Stomach," C. D. Spivak, Denver.

"Soup Diet in Typhoid Fever," H. B. Whitney, Denver. Discussed by Drs. Wilson, Stuver, Hamilton, Pfeiffer, Gilbert, Ashley, Edson, Spivak and Whitney.

The two following papers were discussed together:

"Incipient and Acute Insane; Recoverability and the Factors Therein," J. E. Courtney, Denver.

"Treatment of Neurasthenia," Howell T. Pershing, Denver.

Discussed by Drs. Oettinger and Pershing.

Dr. Jayne: Dr. Packard has a paper on the program later in the afternoon on the "Congenital Dislocations of the Hip." His paper is very short. His cases, which he wishes to show to the Society, are present. He has already had difficulty in keeping them here; and I would suggest that, if there is no objection, he be permitted to read his paper at this time in order that his patients may be permitted to go. I make a motion to that effect. Seconded and carried.

"Report of a Case of Congenital Dislocation of the Hip," George B. Packard, Denver. Discussed by Drs. Corwin, Rogers, Porter, Leavitt, Powers, Driscoll and Packard.

The President called Dr. Sol. Kahn to the chair.

"A Case of Hysterical Hyperpyrexia and Hemoptysis," Bernard Oettinger, Denver. Discussed by Drs. Pershing, Hopkins and Oettinger.

"Report of a Case of Tetanus Cured by Injecting Anti-tetanic Serum into the Brain," I. B. Perkins, Denver. Discussed by Dr. Hopkins.

"Report of a Case of Imperforated Anus, with Vulvar Opening," W. A. Jayne, Denver. Discussed by Dr. Perkins.

"A Case of Congenital Dilation of the Colon," C. K. Fleming, Denver. Discussed by Dr. Hall.

"Shall we Abandon the Use of Antitoxin," F. E. Waxham, Denver.

Dr. Blaine: I move that we adjourn for this evening, and that the three remaining papers be postponed until Thursday forenoon. Seconded and carried.

Wednesday, October 7, 1903.

Society called to order at 9:30 a. m. by the President, Dr. W. W. Grant.

**Papers.**—"Treatment of Whooping Cough," J. Tracy Melvin, M. D., Saguache. Discussed by Drs. Stuver, Sol. Kahn, Edson, Lindsay, Maddox, Higgins, J. W. Smith and Melvin.

Report of legislative committee, by S. D. Van Meter, chairman. Discussed by Dr. McHugh.

Moved by Dr. Elliott, seconded and carried, that the report of the legislative committee be printed in full in the proceedings.

Dr. Sol. Kahn called to the chair.

"The Results of X-Ray Treatment," S. B. Childs, Denver. Discussed by Drs. Stover, Powers and Childs.

The President, Dr. W. W. Grant, resumed the chair.

"Radium," G. H. Stover, Denver.

Dr. P. J. McHugh called to the chair.

"Local Anaesthesia," F. Gregory Connell, Leadville. Discussed by Drs. Powers, W. W. Smith and Connell.

"Cancer of the Rectum; Its Approach by the Abdominal Route," Charles A. Powers, Denver. Discussed by Drs. Rogers, Robinson and Powers.

"Tendon Losses," George W. Miel, Denver. Discussed by Drs. Freeman and Miel.

"Specifics and Specific Methods in the Treatment of Pulmonary Tuberculosis," S. Simon, Denver. Discussed by Drs. Denison and Beggs.

The President resumed the chair.

"Rectal Siphon," R. W. Corwin, Pueblo. Discussed by Drs. Spivak and Corwin.

Afternoon Session, October 7.

Society called to order by the President at 2:30.

**Papers.**—"Carcinoma of the Stomach:"

- (a) Early Diagnosis, C. D. Spivak, Denver.
- (b) Palliative Medical Treatment, W. A. Campbell, Colorado Springs.
- (c) Surgical Treatment, Charles A. Powers, Denver.

Dr. Leonard Freeman called to the chair.

"Ulcer of the Stomach:"

- (a) Diagnosis, M. Kleiner, Denver.
- (b) Medical Treatment, E. P. Hershey, Denver.
- (c) Surgical Treatment, E. J. A. Rogers, Denver.

Dr. J. Tracy Melvin was called to the chair.

"Gastrophtosis and Dilated Stomach:"

- (a) Etiology and Diagnosis, J. E. Kinney, Denver.
- (b) Medical Treatment, W. T. Little, Canon City.

"Significance of Epigastric Pain and Tenderness," J. N. Hall, Denver.

"Significance of Vomiting," George A. Moileen, Denver.

"Influence Upon the Stomach of Certain Diseases Elsewhere in the Body," F. G. Byles, Denver. Discussed by Drs. Sheldon, Spivak and Freeman.

Dr. Sol. Kahn called to the chair.

"Influence of Diseases of the Stomach upon the Nervous System," S. D. Hopkins, Denver.

"Diseases of the Stomach in Connection with the Eyes," George F. Libby, Colorado Springs.

President's Address: "The Progress of American Medicine and Surgery, and Their Relation to Public Affairs," W. W. Grant, Denver. (See page 5.)

Dr. Hall: I think that one fact should be made plain by some member of this Society, which the modesty of our President prevents him from stating. The recent works on appendicitis state, as most of the friends of the doctor know, that the first removal of the appendix for the disease was done in January, 1885, in Davenport, Iowa, by the present President of the Colorado State Medical Society.

The President: I always appreciate, ladies and gentlemen, the good will of the profession everywhere, and particularly am I grateful to my professional friends in Colorado who have paid me the highest honor in their power.

Thursday, October 8.

Meeting called to order at 9:50 a. m. by the President.

**Papers.**—"The Buelow Method of Drainage in Pneumopyothorax, With Exhibition of Case," H. B. Whitney, Denver. Discussed by Drs. Powers, Van Meter, Edson and Whitney.

"Dislocation of the Outer End of the Clavicle, with Report of Four Cases," J. G. Sheldon, Telluride.

Dr. Sol. Kahn called to the chair.

"Puerperal Infection," Clarence L. Wheaton, Denver. Discussed by Drs. R. T. Ramsey, J. W. Smith, Ashley, Corwin, Gilbert and Wheaton.

"Tubercular Ulcerations of the Rectum and Peri-anal Region," D. P. Mayhew, Colorado Springs. Discussed by Drs. Smith, Powers and Mayhew.

"Medical Education in Colorado," S. G. Bonney, Denver.

On motion of Dr. Spivak, seconded and carried, Dr. Bonney's time was extended so that he might finish the reading of his paper. Discussed by Drs. Van Meter, Corwin, J. W. Smith, Levy, Ashley, Cooper, Wetherill and Bonney.

"Cholecystectomy vs. Cholecystostomy—a Plea for the Plaintiff," Dr. Maurice Kahn, Leadville. Discussed by Drs. Sheldon, Miel and Maurice Kahn.

On motion an adjournment was taken until 2 p. m.

Afternoon Session, October 8.

Meeting called to order by the President.

Dr. Miel offered the following resolution:

"Resolved, That the President of this Society be instructed to send to Dr. Frank Finney the following telegram: 'The Colorado State Medical Society sends best wishes for your complete recovery.'"

The President: I will declare it carried without putting it to a formal vote.

Report of House of Delegates was read by Dr. J. M. Blaine, Secretary.

**Papers.**—"Injuries to the Elbow Joint," C. B. Lyman, Denver. Discussed by Drs. Freeman, Grant, Cooper and Lyman.

"Conservative Surgery," George C. Stemen, Denver.

The President announced that this paper would be discussed in connection with Dr. Freeman's paper on appendicitis.

"Intrauterine Flushing and Drainage for Infection; the Passing of the Curette and Douche," H. G. Wetherill, Denver. Discussed by Drs. Rogers, Freeman, Hamilton, Perkins and Wetherill.

"Multiple Depressed Fracture of the Skull," S. D. Van Meter, Denver. Dr. Howell T. Pershing spoke of the "nervous side" of the case.

"Some Points in Modern Theories of Immu-

nity," Henry Sewall, Denver. Discussed by Drs. Wetherill, Sheldon and Sewall.

"Appendicitis," Leonard Freeman, Denver. Discussed by Drs. Hall, Powers, Pershing and Miel.

Dr. Pershing: One of our ex-Presidents, who is just recovering from an attack of appendicitis with perforation, is a man who is universally beloved by the profession, and I think it is not an impropriety, sir, for me to make the motion in connection with this subject that the State Medical Society send its congratulations to Dr. Arnold Stedman and its best wishes for a long life of usefulness.

Dr. Rogers: I am very glad to second such a motion. I think it very appropriate that the State Society should adopt such a motion, and it will be to our honor in every way.

Motion carried unanimously.

The President: I will appoint Dr. Rowan and Dr. Jayne as a committee to escort the president elect, Dr. Thomas H. Hawkins, to the platform.

Dr. Grant: Before retiring as President of this Society, I wish to express to you all my thanks, for the very kind and courteous support which you have always given me in the fifteen months' incumbency of this office. I have tried to serve you to the very best of my ability. I am not aware that I have ever been false to a friend or to the interests or welfare and betterment of my profession; and whatever honors may have been bestowed upon me, however small may have been my own contributions to my profession, I can assure you none which I have ever received will be so long, so pleasantly, and so gratefully remembered as that confidence which you have reposed in me in conferring upon me the highest honor in your power. I again thank you, and will ask the committee to bring forward the President-elect.

The committee escorted Dr. Hawkins to the chair.

Dr. Grant: The pleasure which you have already conferred upon me is now exceeded by that which it gives me to present to you a colleague so entirely worthy of your confidence, your respect and your distinguished consideration, Dr. Hawkins, of Denver.

Dr. Hawkins: Members of the Colorado State Medical Society: I will not attempt to make any speech at the present time, for several reasons. First, you have two very interesting papers before you for discussion, and I understand a considerable program here to be carried out. Furthermore, this is not an occasion, I take it, where extended remarks

are called for. I desire, however, to assure you that I greatly appreciate the honor you have conferred upon me by electing me to be your President for the coming year; and in accepting, I can assure you that I will use my best efforts and endeavors to further the interests of this Society. One other point I wish to allude to, and that is we are shortly to have a new medical journal, the Journal of the Colorado State Medical Society. This journal shall have my hearty support; and I will make it my business to seek out every opportunity to co-operate with those who have charge of this journal. A journal successfully and properly managed by this Society, as its official organ, will do more to perfect the medical organizations in the State of Colorado than anything that I know of. With the co-operation of the members of this Society, and I know that I will have it, I hope and believe that we will have a meeting next year that will equal the one we have just held this year. Gentlemen, I thank you.

**Papers.**—"Microscopic Exhibition of Uncinaria; the Parasite and Its Ova," C. D. Spivak, Denver.

"Tuberculosis and Its Relations to Public Health," C. E. Cooper, Denver. Discussed by Drs. Davis and Cooper.

"Report of State Board of Health," by Dr. J. N. Hall, President.

On motion the Society adjourned sine die.

---

#### REPORT OF THE HOUSE OF DELEGATES.

By J. M. Blaine, Secretary.

Meeting of House of Delegates Colorado State Medical Society, at room 824, Brown Palace Hotel, Denver, at 9 o'clock a. m., October 6, 1903.

The President explained to members the duties of the House of Delegates, and made the ruling that the duties of a councilor did not interfere or conflict with the duties of a member of the house of delegates, and that it was not inconsistent for a person to hold both positions.

Moved by Dr. Blaine that the membership lists be accepted this year from all counties, whether they are sent in strictly in accordance to the rule or not. But that hereafter each county be held strictly to the letter of the constitution and by-laws.

Seconded by Dr. Waxham and carried.

The Secretary read the minutes of the special meeting of the House of Delegates held pursuant to the call of the President, at Denver, on February 9, 1903. Minutes approved.

The Secretary then read a report of the organization work during the past year.

#### Report of Secretary.

Mr. President and Delegates: With the reorganization of the Colorado State Medical Society additional work has been placed on your Secretary.

First, as chairman of committee on publication I would report that of the transactions last year 400 copies were published, each containing 452 pages, at a total cost of printing and binding of \$385.55. The work, which is certainly the best the Society has ever had, was done by The Reed Publishing Company, in less than sixty days from the time the manuscript was delivered. Several eastern journals complimented the quality of the work and the promptness with which it was issued, while the Secretary of the Missouri State Medical Society pronounced our transactions the finest of any received.

With the adoption of the new constitution in the State Society last year it became necessary to reorganize the County Societies. One year ago there were in the whole State of Colorado only ten County Societies. These have all reorganized and adopted the sample constitution sent out by the American Medical Association committee.

Your Secretary began the last fiscal year by writing letters to the prominent physicians in all parts of the state where no local societies existed, urging them to organize. These efforts bore fruit in Fremont County, where a vigorous society now exists; and in the San Luis Valley where, under the able leadership of Dr. J. Tracy Melvin, the counties of Saguache, Mineral, Rio Grande, Conejos and Costillo have been consolidated to form the San Luis Medical Society. Carrying out the suggestion of the House of Delegates I made a trip into the San Juan country last July and succeeded in organizing as follows:

At Durango I combined Durango and Silverton into the San Juan-La Plata County Medical Society, with about twelve charter members, but as they have only held one meeting they thought best not to report at this meeting, but by next year they should have at least twenty members. At Ouray I organized with seven members, being all the physicians in the county but two. In Telluride I organized the San Miguel County Medical Society, with eight, being the entire medical population of the county, except two. In Grand Junction I organized the Mesa County Medical Society, with six charter members and a good field to

draw from. There are nine more eligible men in the county, besides some in the adjacent county, so that by next year the Mesa County Medical Society should be in a flourishing condition.

By the reorganization the State Society has made gains as follows: Boulder County, 23; Denver County, 68; Lake County, 9; Larimer County, 12; Las Animas County, 17; Mesa County, 2; Otero County, 15; Pueblo County, 19; San Luis Valley Medical Society, 13; San Miguel County, 7; Ouray County, 6; Teller County, 55; Weld County, 12; Fremont County, 13; El Paso County, 23. Total gain, 294.

The total membership of our State Society now is 518, which entitles us to two delegates in the American Medical Association.

From a financial standpoint the past year has been the best in the history of the Society. When all the local societies have paid in their assessments the gross amount received since the Pueblo meeting will aggregate about \$2,500.

This will remain as the banner year for some time to come, as the back dues collected during the past year cannot be duplicated.

Of the \$100 voted me for traveling expenses in visiting outside counties, I spent \$68.75. There are still some available locations for county medical societies, but all my efforts by correspondence have, up to date, been fruitless. Societies should be organized at Glenwood Springs, Idaho Springs and Sterling.

Before my term of office expires I shall endeavor to have societies organized in all available counties.

J. M. BLAINE,  
(Signed) Secretary.

Dr. Hopkins moved that a nominating committee of five be appointed by the chair. Seconded by Dr. Jackson and carried. The chair appointed as such committee Drs. S. D. Hopkins, Hubert Work, W. W. Rowan, E. T. Boyd and S. E. Solly.

Moved by Dr. Jackson that the President appoint two members to act with the President as a committee to prepare an order of business for the House of Delegates. Seconded by Dr. Solly and carried.

The President appointed as such two members Drs. Jayne and Hall.

It was moved by Dr. Stover, seconded and carried, that a vote of appreciation and thanks be tendered Dr. Blaine for his effective efforts in organization.

Moved by Dr. Jackson, seconded by Dr. Stover, and carried, that the House of Dele-

gates proceed to hear the reports of officers and committees.

The President called for the report of the committee appointed last year at Pueblo on the establishment of a state journal, and the report of such committee was presented by Dr. Jackson.

Dr. Jackson asked further time for the committee to make a supplemental report, having this morning received a proposition from one of the medical journals of Denver for the publication of the proceedings of the Society. This request was granted.

On motion of Dr. Solly, seconded and carried, the Secretary was instructed to send the following telegram to Dr. J. A. Whiting:

"The Colorado State Medical Society, in annual session, sends its cordial greetings to Dr. J. A. Whiting; it offers him its heartiest sympathy in the recent loss of his wife, and tenders its best wishes for the recovery of his daughter."

On motion the house adjourned to meet at the call of the President.

October 7.

The House of Delegates was called to order by the President, Dr. Grant.

Moved by Dr. Jayne that Section 4 of Chapter XII, of the By-Laws, be amended so as to read, "and who are not affiliated with sectarian colleges or societies;" and further moved that the Secretary instruct County Secretaries to shape their by-laws similar to this.

Moved that for the coming year there shall be a committee of three on by-laws. Carried.

The President appointed Drs. Jayne, Jackson and Blaine.

The following resolution was moved by Dr. Jackson:

Resolved, That in the judgment of the Colorado State Medical Society, simple tests of sight and hearing should be applied to every scholar in the public schools.

Resolved, That the State Board of Health, and the school authorities throughout the state, are requested to give early attention to the matter, and secure the systematic use of such tests, to be repeated once a year during the school life of each pupil.

The committee on journal reported that in their opinion it would be wise and prudent for the State Medical Society to own and publish its own journal.

Moved by Drs. Hopkins and Graham that the report be adopted. Carried.

Moved by Dr. Solly that all papers presented to this Society shall be its exclusive property. Carried.

Amendment to the By-Laws, proposed by journal committee, whereby the Secretary was relieved from being chairman of publishing committee, was called up and adopted.

Chapter VIII, Section 4, was amended to read as follows:

"The committee on publication shall consist of three members, to be elected by the House of Delegates, one each year for a term of three years. It shall publish a monthly journal, which shall be the official organ of this Society and its component County Societies, which shall contain the minutes of proceedings and official announcements of this Society. It shall have full power in determining what scientific communications or other matter shall appear in the journal. All papers read before the Society, and the discussions thereon, shall be under the control of this committee. It shall, also, appoint and control an editor for the journal, who shall receive a salary, to be fixed by the House of Delegates."

Adjourned to meet at 10:30 Thursday.

Thursday, October 8, 1903.

The meeting was called to order by W. W. Grant, Chairman.

On motion of Dr. Edward Jackson, Section 1, of Chapter VI, of the By-Laws of the Society, was changed, adding to the duties of the President, as follows: "He shall fill, until the next annual meeting, any vacancy caused by inability to act on the part of any officer or member of a committee."

After some discussion of a suggested change in Section 2, of Chapter IX, of the By-Laws, striking out the final clause thereof, relating to County Societies failing to send in reports and assessments, it was resolved, on motion of Dr. Jackson, that this matter be referred to the committee on revision for the ensuing year, with instructions to report at the next annual meeting.

On motion of Dr. Jackson, Section 2, of Chapter I, of the By-Laws, was so amended as to strike out the words "Provided, however," and all words following these in said section; thus compelling all members to be members of County Societies and to conform to the revised constitution.

On motion of Dr. Jackson, it was resolved "That the Secretary of this organization be authorized and instructed to arrange for the inclusion of members of the State Society, now in good standing, within the most convenient County Societies, without additional expense to those members who are affected by this amendment and without their having to pay an initiation fee."

The question having been raised by Dr. Rogers as to whether, according to the Constitution, an ex-officio member meant the same as an honorary member, motion was made by Dr. Polly, duly seconded and carried, that the Councillors each have a vote in the House of Delegates.

On motion of Dr. W. A. Jayne, Section 4, of Chapter XII, of the By-Laws of the Society, was changed to read as follows:

"Each County Society shall judge of the qualifications of its own members, but, as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally qualified physician residing in the county, and who does not practice or claim to practice sectarian medicine and does not belong to any sectarian school or society, shall be entitled to membership. Before a charter is issued to any County Society, full and ample notice and opportunity shall be given to every such physician in the county to become a member."

Dr. J. N. Hall delivered, orally, his report as delegate of this Society to the American Medical Association, which report, on motion of Dr. Solly, was received by the House.

On motion of Dr. Solly, duly seconded, it was resolved that the President of the United States be requested to appoint a physician of national standing upon the Isthmian Canal Commission.

Motion was made by Dr. Jayne, duly seconded and unanimously adopted, that the car fare and Pullman fare of the delegate to New Orleans be paid from our treasury, upon presentation of proper vouchers.

Motion was made by Dr. Solly, duly seconded and carried, that the actual necessary traveling expenses to and from the national convention, of the delegates elected by this body, be paid by this Society.

Motion was made by Dr. Rogers, duly seconded and carried, that the salary of the editor of the journal be established and fixed at \$300 a year.

Motion was made by Dr. Jackson, duly seconded and carried, "That this Society warmly commends the action of Congress and the census office in relation to the adoption of the international classification of vital statistics; that it promises its cordial co-operation in securing the adoption of this system in Colorado, and authorizes the committee on sanitation to take all proper measures to secure that end.

Dr. Solly, chairman of committee on nominations, thereupon presented the report of said

committee, which, upon motion of Dr. Jayne, was accepted by the House.

The following were elected officers for the ensuing year:

President, Thomas Hayden Hawkins, of Denver; First Vice President, J. Tracy Melvin, of Saguache; Second Vice President, A. C. Freidmann, of Colorado Springs; Third Vice President, R. F. Graham, of Greeley. The Secretary, J. M. Blaine, of Denver; and Treasurer, Wm. J. Rothwell, of Denver, were elected in 1902 for a term of three years.

Edward Jackson, S. E. Solly and Robert Levy were elected members of the publication committee.

Delegates to the American Medical Association were selected as follows: Dr. W. A. Jayne, two years; Sol. G. Kahn, one year; alternates, C. K. Fleming, two years; W. W. Ashley, one year.

Two members of the board of councillors were elected, as follows: C. F. Gardiner and S. D. Hopkins.

The councillors reported that they had adopted the Code of Ethics, as recommended by the American Medical Association at its meeting last May in New Orleans.

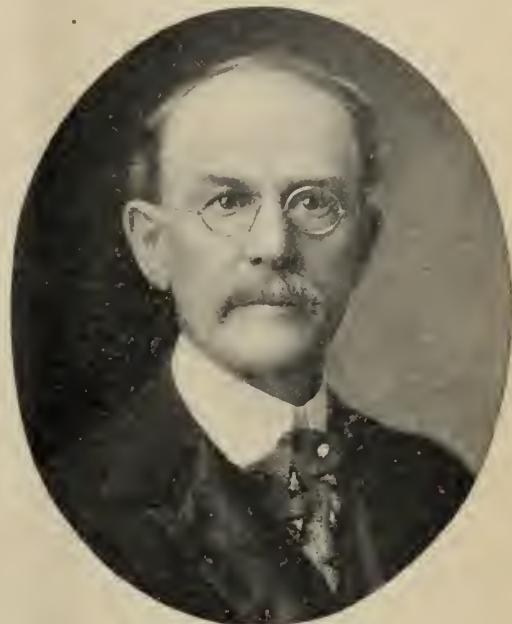
Dr. Jackson moved, which motion was duly seconded and carried, that the unexpended part of the appropriation voted for the Secretary's expenses for organizing County Societies be continued for further organization work during the coming year.

On motion of Dr. Work, the House of Delegates was thereupon adjourned, to meet the first week in October, 1904, in Denver.

#### William W. Grant, M. D.

The retiring President of the State Medical Society, Dr. W. W. Grant, was the son of Dr. Thomas MacDonough Grant, of Russell County, Alabama. He grew up upon his father's plantation and received his early education in that region. At the age of 16 he joined Clanton's Battery of Alabama artillery as a private; and served during the last sixteen months of the Civil war, rising to the position of sergeant in charge of the gun. After the close of the war he attended school for a year and then entered upon the study of medicine. He pursued his studies in the Jefferson Medical College, Philadelphia, and the Bellevue and Long Island College Hospital, in New York, and graduated from the last named institution in 1869. He began practice near Sioux City, Iowa, but in 1872 moved to Davenport, Iowa. In 1885 he became post surgeon

of the Rock Island Arsenal. This position he resigned in 1886 to go to Europe. He spent a year in the study of surgery in the hospitals in Berlin, Vienna and London, and on his return, in 1889, located in Denver.



DR. W. W. GRANT.

It was while living in Davenport, January 4, 1885, that he performed the first laparotomy for appendicitis. He opened the abdomen, separated the adhesions about the caecum and cut off the appendix vermiciformis. Dr. Grant became a member of the Denver and Arapahoe County Medical Society in 1890; and the Colorado State Medical Society in the same year. He was already a member of the American Medical Association.

Since his residence in Denver, he has been surgeon to St. Luke's and St. Joseph's Hospitals, and local surgeon to the Rock Island Railroad. In 1899 he was appointed by Governor Thomas Surgeon General of Colorado, and re-appointed to that position two years later by Governor Orman. He is president of the Board of Control of the State Asylum for the Insane. He has also been president of the American Academy of Railroad Surgeons, and the Colorado Medical Library Association. He is one of the trustees of the American Medical Association. His presidency of the Colorado State Medical Society, which, by reason of the change in the time of meeting, extended over fifteen months, has been notable for the re-organization of the Society,

the increase of its membership and the establishment of its journal. All of these movements have had his efficient support.

#### COUNTY MEDICAL SOCIETIES.

**Denver.**—The meeting of October 6 was omitted on account of the meeting of the State Medical Society.

October 20.—**Nervous Shock** was the subject of a paper by Dr. C. G. Stemen. He found that general nervous shock was largely increased or caused by fear. That wounds inflicted without warning usually cause little shock. So-called delayed shock commonly means some complication arising in the course of the case. In surgical shock there is added to the condition of general nervous shock the factor of hemorrhage. For treatment, he has resorted to intra-abdominal injections of hot water, with most gratifying results.

**The Formaldehyde Treatment of Laryngeal Tuberculosis** was advocated by Dr. L. B. Lockard. The 40 per cent water solution, formalin, is a most powerful germicide. Diluted to 1 part in 75,000 it has been proven to exert a distinct germicidal influence; and to spray the larynx a solution of 1 to 50 may be employed, previous spraying with cocaine preventing any smarting. Formalin, also, causes shrinking of hyperplastic tissue and so meets another indication in these cases. In addition to this it has the power of producing some anaesthesia of the parts. The danger of its forming a dry gangrene must be very slight. In an extensive use of it he had seen no indication of such a tendency. To be effective it must be applied frequently. Office applications should be made daily; and the patient be given a one-half per cent solution, to be used as a spray three or four times a day.

**Case of Gall-Stone** was reported by Dr. P. D. Rothwell. Pain always occurred about two hours after a meal, simulating duodenal ulcer.

**Case of Rheumatism, Chorea and Mitral Regurgitation** was reported by Dr. W. J. Rothwell. The patient, a boy of 8 years, had become extremely dropsical in an eastern sanitarium, but improved rapidly after being brought to Denver and treated by mechanical removal of fluid and the usual medication.

**A Tape Worm**, 39 feet long from a boy of 10 years, was exhibited by Dr. C. F. Schollenberger. It had been expelled by the use of pelletierin. In 37 cases, in which he had used this drug the complete worm had been expelled by the first dose in 35. In one of the

others it had come away after a second dose, and the other case had passed from under observation. He gave it in the morning, fasting; kept the patient in the recumbent position to prevent vomiting and two hours later gave an active saline purge.

**El Paso County.**—The October meeting, held on the 14th of the month, was devoted almost wholly to business, no paper being read. The November meeting will be held at the Antlers Hotel, Colorado Springs, Wednesday, the 11th; the meetings being held at that place the second Wednesday of each month.

D. P. MAYHEW, Secretary.

**Las Animas County.**—The November meeting of the Society was held at the office of Dr. J. R. Espey, Friday evening, November 6, with only five of its twenty-one members absent. "Pneumonia" was the title of an interesting paper by Dr. J. R. Wright, which brought out a spirited and instructive discussion. To take up the matter of the annual banquet of the Society, a committee, consisting of Drs. Espey, Raizon and Davenport was appointed. The next regular meeting of the Society will be Friday, December 4. Dr. A. K. Carmichael was appointed to prepare the paper.

PERRY JAFFA, Secretary.

**Otero County.**—The regular meeting of this Society was held at La Junta, October 13. Dr. B. F. Haskins read a paper entitled "Should Ergot be Given in any Case of Labor to Increase the Pains?" The next meeting will be held at La Junta on November 10.

A. R. TIMERMAN, Secretary.

**Ouray County.**—This Society has held but a single meeting. Its next meeting will be at 8 p. m., Wednesday, December 2.

**San Juan-La Plata Counties.**—This Society was organized in October, with election of the following officers: President, Dr. John Haggard; Vice President, Dr. C. M. Potts; Secretary, Dr. H. C. Lefurgey; Treasurer, Dr. A. L. Davis; Delegate to the State Society, Dr. W. W. McEwen. The next meeting will be held at Durango, January 8, 1904.

H. C. LEFURGEY, Secretary.

**San Luis Valley Medical Society.**—This Society, including the physicians of five counties, held its October meeting in Monte Vista, on the 29th, at 10 a. m. There was a fine attendance of members, some of whom had to do three days' traveling to be present. The program included the following papers: "Ethics of American Medical Association," J. Tracy Melvin, Saguache; "Varicocele and Its Treatment," C. L. Orr, Alamosa; "Append-

citis in Country Practice," Dr. Pollock, Antonia; "Gall-Stones," Dr. Shippey, Villa Grove; Delegate's Report of the State Medical Meeting, T. Rosebrough, Hooper. The next meeting will be held in Alamosa the latter part of December, the exact date being not yet fixed.

E. E. WHEDON, Secretary.

**San Miguel County.**—Its meeting, at Telluride, September 24, had a report of a case of "Ephemeral Lobar Pneumonia," by Dr. Edgar Hadley; and one of a case of "Gastritis," by Dr. A. F. S. Brown. Dr. C. W. DeLannoy read a paper based upon the records of the Telluride Health Office. The October meeting was held on the 30th. Drs. Allen and Sheldon, delegates to the State Medical Society, gave an interesting report of the recent meeting. The change of By-Laws adopted by the House of Delegates, and recommended to the County Societies, defining eligibility to membership, was adopted. Drs. Brown and J. Q. Allen reported a case of "Puerperal Septicemia" occurring in the practice of a midwife. Dr. Brown also reported a case of "Labor, Complicated by Floating Kidney, and Followed by Paralysis of the Right Leg." Next meeting will be held at Telluride, November 26. The officers of the Society are: President, J. Q. Allen; Vice President, J. G. Sheldon; Treasurer, A. F. S. Brown.

FLOYD A. WHITING, Secretary.

**Teller County.**—The Teller County Medical Society met in regular session in the offices of Dr. C. E. Elliott, of Victor, Tuesday evening, October 27. After the usual routine business, Dr. H. S. Torrence reported a case of **Gangrene**, with a history briefly as follows: A miner, thirty years of age, with a negative family and personal history, sustained an injury to the back and abdomen, by a falling timber striking him in the mid-dorsal region, with such force as to throw him forward, his shovel-handle striking him about half way between the umbilicus and the ensiform cartilage, and two inches to the left of the median line. When examined an hour after the injury sensation was lost below the knee, but the patient could flex and extend the foot slightly. There was no evidence of external injury to the leg, and no pulsation of the vessels of the leg could be obtained. In a few hours the member became cold, had a marble appearance and the following day discoloration commenced about the toes and plantar surface of the leg, gangrenous symptoms increasing and amputation becoming imperative on the fifteenth day. Dr. Torrence believed the cause of the gangrene to have been a thrombus,

caused by the abdominal injury, which lodged somewhere about the bifurcation of the popliteal artery. The case was discussed with interest by those present, and all agreed with Dr. Torrence as to the etiology of the trouble, and necessity of amputation, which was done about the middle of the thigh. Dr. C. E. Elliott was elected to membership of the Society, and adjournment followed a good social time, with refreshments. W. W. KING, Secretary.

**Weld County.**—The Society met October 26, at the office of Dr. Law. W. F. Spalding reported case of a male, aged twenty-seven, whose prominent symptoms were inspiratory dyspnoea and quickened and irregular pulse. Physical signs, aortic regurgitation, slight blood spitting, moderate rales, no expiratory difficulty, no oedema, death. Autopsy showed right ventricle dilated, a firm, fibrinous, chord-like mass was found attached to the chordae tendineae and extending into the pulmonary artery, vegetations on mitral and aortic valves, lungs anaemic but otherwise normal.

Dr. R. L. Pogue read a paper based on 60 cases of **Tuberculosis Treated With Tuberculin**; 30 by tuberculin alone, and 30 by tuberculin plus rest and symptomatic medication. The results were quite encouraging. He administers tuberculin in very small doses, as he designs to avoid the usual febrile reaction. Of course he nearly always gets a reaction at the onset, because of the difficulty of computing the susceptibility of the patient except by trial. The subsequent doses are made small enough to avoid it. He avoids giving tuberculin to patients with an elevated temperature. Such patients are sent to bed and given symptomatic treatment until in condition to receive tuberculin. Dr. Pogue insists on the necessity of early diagnosis, and the difficulty of convincing patients in the early stages of their true condition. Discussed by members, 'none of whom seemed to have had experience in this method of treatment.

The Society then adopted the amendment to the By-Laws passed by the State Council at the late meeting of the State Society. It also accepted the invitation of the Weld County Commissioners to meet them during the first week in November and advise with reference to the furnishing and management of the new Weld County Hospital, now nearly completed. The President, Dr. Church, was made chairman of a committee of three, two to be appointed by himself, to definitely and officially represent the Society. But all the members were urged to take an interest in the matter. Adjourned to meet the last Monday in November. G. LAW, Secretary.

## DEATHS.

**Dr. Herbert L. Barnes**, a graduate of Gross Medical College in the class of 1889, died of heart disease in Montrose, Colo., October 16, aged 34 years. He had been in active practice in that region for several years, and had served as coroner and health officer for Montrose County. He was a member of the Southern Colorado Medical Association.

**Dr. Lafayette Z. Coman**, a graduate of the University of Michigan, died of pneumonia in Boulder, Colo., October 16, aged 67 years. He had resided in that city for many years. Was a member of the Boulder County and Colorado State Medical Societies; and Professor of Minor Surgery and Bandaging in the Medical Department of the University of Colorado.

## NEWS ITEMS.

Dr. L. E. Lemen has been chosen to fill the vacancy in the Denver School Board caused by the death of Dr. F. W. Steinhauer.

Dr. S. D. Hopkins, of Denver, has suffered from a sharp pneumonic attack following exposure incident to attending a patient among the mountains of Wyoming. He is now convalescent.

Dr. D. H. Richardson, of Denver, was thrown from his bicycle and suffered injuries to the face and head.

Dr. W. L. Davis, of Denver, has been subjected to a suit for \$5,000 damages on account of severe infection following a cut in a patient's finger.

In the case of Dr. T. A. McGlory, of Boulder, charged with malpractice, the jury rendered a verdict of not guilty.

Dr. D. S. Hoffman, of Lake City, was the Republican candidate for county commissioner of Hinsdale County.

Dr. Rose Kidd-Beere has been appointed a truancy officer by the Denver School Board. Undoubtedly among the juvenile delinquents are some who need skilled medical oversight and attention.

It is announced by Dr. Charles R. Keys, President of the New Mexico School of Mines at Socorro that radium has been discovered in a very large deposit of uranium ore found in the mountains near that place. The amount of radium present is now being investigated.

The suit to establish the freedom of the "Oakes" Consumptive Home in Denver from liability to taxation, on the grounds that it is a charitable institution, brought out a good deal of interesting testimony as to the char-

acter and methods of the institution. Judge Johnson decided that it should not be exempt from taxation. The amount of taxes involved is nearly \$5,000. An appeal was taken to the Supreme Court.

Cheyenne, Wyo., is suffering from a sharp epidemic of small-pox. The first case was recognized about October 13. Up to November 1 fifty-two cases had been placed under quarantine. The public schools have been closed; all school children were ordered to be vaccinated; and soldiers from Fort Russell have been prohibited from visiting the city without special permission. The spread of the disease now seems to be checked.

Texas is about as near to Colorado as yellow fever is likely to get. The epidemic at Laredo in that state was a severe one, but is now subsiding. The town has a population of 15,000 and there have been over 900 cases, with 84 deaths. San Antonio has a few cases, and was under quarantine for two weeks, trains being run through the town at full speed.

Colorado is facing the situation of insufficient provision for its insane. The Pueblo asylum is overcrowded, and the Denver County Hospital is caring for 119 such patients, in a building designed for about half that number. There has been some effort to compel the families of those who are financially able to do so to care for their afflicted relatives. Among the cases recently receiving special attention in the daily papers is one of a young man, said to have wealthy relatives in an Eastern city, and to have been attacked while studying at Princeton College. Another is the case of Dr. George H. Field, an eclectic, who recently practiced at Cloverdale, Calif.

Seven nurses were graduated from St. Luke's Hospital Training School, Denver, on October 27. The graduating exercises was held in St. Mark's church. Bishop Olmsted presented the diplomas. It is expected that the new home for nurses connected with the hospital will be completed within a month.

A traveling optician from Denver recently came to grief in Routt County. His advertising himself as "Dr. E. S. Corbin, Eye Specialist," caused his arrest for practicing medicine without registration. He plead guilty and was fined \$50 and costs. This might be expected to have a discouraging influence of this kind of false pretense. But we know of one case in which one of these traveling opticians was paid \$300 for a pair of glasses that the victim never could use. That would pay several such fines.